

and pay for them on their bills. However, smart cards have not yet been widely deployed, and mobile network operators do not have a track record in e-commerce payments. A better solution is offered by the present invention, which utilizes the existing credit card network.

[0316] In operation, a Bluetooth enabled WAP phone, of instance, would be used to retrieve a CPN. The following steps would take place:

[0317] 1. The user would connect to the issuer's website using the WAP phone, and would log in and request a CPN.

[0318] 2. The issuer's web server would communicate with the Orbiscom server, which would issue an CPN with the required controls and link to the users account (either set by the user at the time or using pre-determined default values).

[0319] 3. The CPN would be returned to the user's WAP phone over the mobile network.

[0320] 4. The user would instruct the Bluetooth-enabled WAP phone to discover the POS service of the POS terminal.

[0321] 5. The phone and POS terminal would establish a Bluetooth connection, using suitable authentication security.

[0322] 6. The phone would beam the CPN to the POS terminal.

[0323] Signature Authentication

[0324] Card Present transactions are characterized by visual signature authentication, in which the signature on the credit card is compared to the signature on the sales voucher. A different kind of authentication is required by wireless Card Present transactions. The unique SIM card in every mobile phone can be used as an identification card, and technologies such as fingerprint identification and voice recognition will insure that a stolen phone cannot be used by anyone other than the owner.

[0325] Mobile POS

[0326] As well as the familiar card present situations, such as payment at a restaurant, the growth of wireless mobile networks has made possible the development of mobile POS terminals. Up to now, mobile retailers and service providers have been at a disadvantage as the world moves towards a system of cashless transactions. Mobile POS terminals will allow credit card payments on public transport, in taxis, and at open air markets, as well as allowing. It will also be possible to pay by credit card for services such as pizza and grocery delivery, and appliance repair in the home. Card present CPN applications will allow payment in all of these situations.

[0327] Smart Cards

[0328] As credit cards migrate to smart card technology, the payment possibilities will broaden. Smart cards are an ideal method of authenticating users with a card issuer during issuing of CPN numbers in a virtual environment. The transaction specific nature of CPN payments enables linkage of a smart card authentication step to a specific payment without requiring merchants or acquirers to implement authentication technology.

[0329] In addition several additional possibilities exist for storing CPN numbers in smart cards for card present use. For example, Ericsson's prototype Wireless Wallet is a real wallet that contains a smart card reader and a WAP server, and allows the user to browse the cards in the wallet from a WAP phone. CPNs could be stored on a smart card for use when needed. You could simply browse the cards in the wallet, and select the CPN to be sent to the POS terminal, all without taking the wallet from your pocket.

[0330] 3G Phones

[0331] Third generation mobile phones and hand-held devices will be capable of requesting and storing CPN's, of displaying internet content much richer than the current WAP phones, and of running feature rich applications such as the CPN system in accordance with the present invention. The march of technology will continue to create new opportunities for card payments, and CPN technology will be there to provide the security needed.

[0332] While the foregoing description makes reference to particular illustrative embodiments, these examples should not be construed as limitations. Not only can the inventive system be modified for other card numbered systems; it can also be modified for other computer networks or numbering schemes. Thus, the present invention is not limited to the disclosed embodiments, but is to be accorded the widest scope consistent with the claims below.

What is claimed:

1. In a financial transaction system capable of using at least one limited use credit card number which is limited in use by a party other than a limited use credit card number issuer and which is associated the master account number of a customer, a method of controlling the validity of the limited use credit card number comprising the steps of:

sending to a user from a limited use credit card number issuer a limited use credit card number;

communicating with a limited use card number card issuer to establish limitations on the use of the limited use credit card number by a third party before it can be used in a transaction by said user; and

authorizing transactions which meet said established limitations and denying other transactions by comparing at a central location the attempted use to the established limitations on use.

2. The method of claim 1, wherein said use limitations include a combination of a present transaction amount limit and one of: a merchant and merchant type.

3. The method of claim 2, wherein transactions are reported to a supervising authority other than a user at one of: a time of transaction and at a time of said supervising authority's initiation.

4. The method of claim 1, wherein said limited use credit card number is activated upon receipt by said third party provider of a limited use credit card number of commercially valuable information from the user of said limited use credit card number.

5. The method of claim 1, wherein said limited use credit card number is activated and limited to a predefined monetary amount as settlement of a claim by said user of said limited use credit card number against said third party that provided said number to said user.